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**Notice of Allowability**

Application No.

10/026,387

Applicant(s)

SALO ET AL.

Examiner

Anh Ly

Art Unit

2162

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/27/2007.
2. ☒ The allowed claim(s) is/are 1-7.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|  | 9. <input type="checkbox"/> Other _____.   |

### **DETAILED ACTION**

1. This Office Action is response to Applicants' RESPONSE filed on 11/27/2007.
2. Claims 8-11 have been cancelled.
3. Claims 1-7 are allowed.

### **Allowable Subject Matter**

4. The present application has been thoroughly reviewed. Upon searching a variety of databases, the examiner respectfully submits that claims 1-7 are allowed in light of the applicants' argument and in light of the prior arts of made record.

The following is an examiner's statement of reasons for allowance:

5. The present invention is directed to an object persistent management system, and a method for managing a may-to-many relationship of one or more related objects and one or more corresponding links. A junction table storing relationships between the related objects and one or more corresponding links. Each link can correspond to one of the objects. Furthermore, each link can persist state information for the corresponding object in an associated object table. Finally, each link can manage the junction table responsive to changing relationships with others of the related objects. Importantly, as the present invention distributes the management of the junction table, a counter-operation management protocol can be provided which can resolve conflicts, which arise in the management of the junction table in response to changing relationships among their associated objects.

The closest prior arts, Patent No.: 5,717,924 of Kawai teaches data migration management in many-to-many relationship between tables or related objects in the relational database system and reflecting the change relationships of the related objects. Also Kawai teaches a third table using for changing relationships of objects in the related tables and object links that define relationships between related object in the object model. Pub. No.: US 2003/0055822 A1 of Yu teaches a relationship table storing the links of the table containing key pair entry: two primary keys of two tables having a many-to may relationship. In combination, Kawai and Yu fail to teach a plurality of corresponding decentralized links, each said link corresponding to one of said objects, each said link persisting state information for said corresponding object in an associated object table, and managing said junction table responsive to changing relationships with others of said related objects.

These distinct features, in conjunction with all other limitations of the dependents and independent claims render claims 1-4 them allowable.

6. Also, Kawai and Yu fail to teach searching for an opposite directive in a buffer associated with said related object and performing said stored directive only if the opposite directive has not been stored in said buffer associated with said related object.

These distinct features, in conjunction with all other limitations of the dependents and independent claims render claims 5-7 them allowable.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

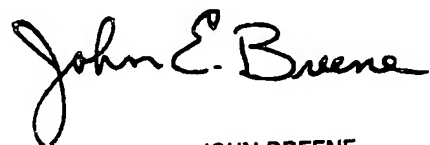
### **Contact Information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH LY, whose telephone number is (571) 272-4039 or via e-mail: ANH.LY@USPTO.GOV (written authorization being given by Applicant(s) - MPEP 502.03 [R-2]) or fax to (571) 273-4039 (unofficial fax number directly to examiner).

The examiner can normally be reached on TUESDAY – THURSDAY from 8:30 AM – 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John Breene**, can be reached on **(571) 272-4107**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any response to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or faxed to: **Central Fax Center: (571) 273-8300**

ANH LY   
DEC. 13<sup>th</sup>, 2007



JOHN BREENE  
SUPERVISORY PATENT EXAMINER  
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